UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF: SR-6J

January 6, 2012

Thomas W. Steib
Operations Manager
Detrex Chemicals Division
Elco Corporation
1100 N. State Road
Ashtabula, OH 44004

Re: *Status of Explanation of Significant Differences (ESD) for Additional DNAPL Recovery Well/Slurry Wall Design and Work Plan*
URS Corporation, September 2011

Dear Mr Steib:

Following up to my October 28, 2011 letter on the *Additional DNAPL Recovery Well/Slurry Wall Design and Work Plan*, EPA drafted an ESD and held the comment period open until December 12, 2011. After careful consideration of comments received, we have decided not to make a decision on an ESD until after the Membrane Interface Probe (MIP) investigation is completed and additional pilot tests are run on alternative extraction well designs.

Detrex has approval to proceed with the MIP portion of the *Work Plan* (Section 5.1). You may proceed with the MIP investigation immediately in order to take advantage of the unusually mild weather we are currently experiencing. The MIP investigation may be expanded in the former lagoon area to provide additional sample locations than those already identified in the *Work Plan.*

The Source Control ROD for Detrex requires DNAPL to be removed from the source area to the extent practicable. We need more information to determine which type of well design works best at your site.

Please prepare a work plan for an evaluation of DNAPL extraction wells, to be located in the central portion former lagoon area. At least six extraction wells should be installed, two each of the following types:

1. The discontinuously-operated type with MDRU, as proposed in the *Work Plan*
2. Two phase Vacuum-Enhanced, similar to the existing wells
3. Dual Phase Vacuum-Enhanced, as proposed by the FBAG
4. Additional extraction wells, of a different design than listed above, may also be installed

The investigation should generate the types of information that is needed to evaluate system performance and to optimize system configuration. Data should be collected and reported on a weekly basis until the extraction system response is fully understood and consistent data are being produced. New monitoring wells, piezometers, or probes should be located in close proximity to the extraction wells, and in sufficient geometry and number to allow a spatial representation of the capture zone and recognition of possible heterogeneities for DNAPL movement. Site response should be monitored closely, to ensure inward gradients are being achieved, DNAPL production rates are understood, and localized monitoring wells are confirming that DNAPL thickness in the source area monitoring wells is decreasing in a steady, gradual fashion. At a minimum, the following parameters should initially be measured and analyzed on the frequency sufficient to support efficacy of the technology or full scale design.

- Vacuum pressure in the DNAPL extraction wells – wells should be instrumented to collect these data continuously, beginning at system startup;
- Water and DNAPL level data – wells should be instrumented to collect these data continuously, beginning at system startup (in the DNAPL extraction wells and monitoring wells); and
- Flow rate and total volume of DNAPL recovered from extracted gasses, groundwater, and DNAPL.

We would expect these wells to operate for approximately six months before making any further decision on the ESD. Please submit a draft work plan and construction schedule to EPA within 30 days.

I can be reached by phone at 312 886-4843 if you have any questions.

Sincerely,

W. Owen Thompson

W. Owen Thompson
Remedial Project Manager
Superfund Division

Attachment

cc: Peter Felitti, U.S. EPA, C-14J
Regan Williams, Ohio EPA NEDO
Robert Currie, Detrex
Martin Schmidt, URS